

**Laura S. Olton**  
General Counsel  
Rhode Island

October 12, 2006

**VIA HAND DELIVERY & ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 3628 – The Narragansett Electric Company’s Service Quality Plan  
Feeder Ranking Report – 3rd Quarter 2006**

Dear Ms. Massaro:

Enclosed please find ten (10) copies of the Feeder Ranking Report for the third quarter of 2006, filed in accordance with the Additional Reporting Criteria, Item 1, of The Narragansett Electric Company, d/b/a National Grid Service Quality Plan effective January 1, 2005.

Thank you for your attention to this filing. Please feel free to contact me if you have any questions at (401) 784-7667.

Very truly yours,



Laura S. Olton

Enclosures

cc: Docket 3628 Service List  
Paul Roberti, Esq.  
Steve Scialabba, Division

**Feeder Ranking Quarterly Report**  
**The Narragansett Electric Company, d/b/a National Grid**  
**July 2006 - September 2006**

Rank	Feeder	Frequency	Town Served	Customers	Events	Duration	CMI	Cause	Corrective Action
1	30F2	7.2708	EXETER NORTH KINGSTOWN	3228	31	524.89	1694351	Feeder Lockout - Overload - heat	Performed switching to relieve load and restored circuit
								Fuse Link Failure - Overload - heat	Replaced transformer fuse
								Fuse Link Failure - No Cause Found	Replaced line fuse
								Pole Top Recloser Lockout - Load Imbalance - heat	Performed switching to relieve load and restored circuit
								Fuse link failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - Overload - heat	Replaced transformer fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - Tree Branch	Replaced transformer fuse
								Fuse Link Failure - Tree Branch	Replaced transformer fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - Tree Branch	Replaced transformer fuse
								Fuse Link Failures - fallen tree	Replaced line fuse
								Fuse Link Failure - No Cause Found	Replaced line fuse
								Fuse Link Failure - Tree Branch	Replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Planned outage - equipment maintenance	Replaced line fuse
								Feeder Lockout - Overload - heat	Performed switching to relieve load and restored circuit
								Fuse Link Failure - Overload - heat	Replaced line fuse
								Fuse link failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Pole Top Recloser Lockout - Overload - heat	Performed switching to relieve load and restored circuit
								Feeder Lockout - Overload - heat	Performed switching to relieve load and restored circuit
								Loss of 34.5kV Supply to feeder - substation equipment overload - heat.	Performed switching to relieve load and restored circuit
								Fuse Link Failures - fallen tree	Replaced line fuse
								Fuse Link Failure - Animal	Replaced transformer fuse
								Fuse Link Failure - Tree Vines	Replaced transformer fuse
								Blown riser fuse - cable insulation failure	Repaired cable and replaced riser fuse
								Feeder lockout - Fallen Tree	Removed tree and restored circuit to normal operation
								Fuse Link Failure - Tree Branch	Replaced transformer fuse
								Planned outage - equipment maintenance	Replaced line fuse
								Fuse Link Failure - equipment failure	Replaced damaged equipment and replaced transformer fuse
2	126W40	6.1209	LINCOLN SMITHFIELD	612	5	410.42	251179	Fuse Link Failure - equipment failure	Replaced damaged equipment and replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced damaged equipment and replaced line fuse
								Fuse Link Failure - equipment failure	Replaced damaged equipment and replaced line fuse
								Fuse Link Failure - Tree Vines	Replaced transformer fuse
								Pole top recloser lockout - tree growth	Removed tree condition and restored circuit to normal operation
3	87F2	3.3781	WARWICK	201	4	366.99	73765	Feeder lockout - Fallen Tree	Removed tree and restored circuit to normal operation
								Loss of 115kV supply to Substation - thunderstorms.	Patrolled supply line and found no damage. Restored circuit to normal operation.
								Loss of 115kV supply to Substation - unknown cause	Patrolled supply line and found no damage. Restored circuit to normal operation.
								Loss of 115kV supply to Substation - unknown cause	Patrolled supply line and found no damage. Restored circuit to normal operation.
4	87F4	3.285	WARWICK	400	5	327.74	131094	Loss of 115kV supply to Substation - thunderstorms.	Patrolled supply line and found no damage. Restored circuit to normal operation.
								Loss of 115kV supply to Substation - unknown cause	Patrolled supply line and found no damage. Restored circuit to normal operation.
								Loss of 115kV supply to Substation - unknown cause	Patrolled supply line and found no damage. Restored circuit to normal operation.
								Fuse Link Failure - Animal	Replaced transformer fuse
								Fuse Link Failure - Animal	Replaced transformer fuse

**Feeder Ranking Quarterly Report**  
**The Narragansett Electric Company, d/b/a National Grid**  
**July 2006 - September 2006**

Rank	Feeder	Frequency	Town Served	Customers	Events	Duration	CMI	Cause	Corrective Action
5	73J5	3.2522	CRANSTON	559	4	803.05	448903	Feeder lockout - Equipment Damage Loss of 23kV supply to feeder - lightning Loss of 23kV supply to feeder - lightning Fuse Link Failure - equipment overload	Replaced damaged equipment and restored circuit to normal operation. Performed switching and restored circuit to normal operation. Performed switching and restored circuit to normal operation. Replaced line fuse
6	63F5	3.1867	COVENTRY WEST WARWICK	3513	15	269.65	947289	Fuse Link Failure - Animal Tripped CSP Transformer - Overload Fuse Link Failure - Lightning Fuse Link Failure - Tree Branch Feeder lockout - lightning Fuse Link Failure - lightning Tripped CSP Transformer - Overload Fuse Link Failure - Deteriorated equipment Loss of 34.5kV Supply to feeder - substation equipment overload - heat Fuse Link Failure - Animal Fuse Link Failure - equipment overload Fuse Link Failure - Animal Fuse Link Failure - Deteriorated equipment Fuse Link Failure - Animal Fuse Link Failure - equipment damage	Replaced transformer fuse Reset breaker on transformer Replaced transformer fuse Replaced transformer fuse Closed feeder breaker and restored circuit to normal operation Replaced line fuse Reset breaker on transformer Replaced equipment and replaced transformer fuse Performed switching to relieve load and restored circuit Replaced line fuse Replaced equipment and replaced transformer fuse Replaced transformer fuse Replaced equipment and replaced transformer fuse Replaced line fuse Repaired equipment and replaced transformer fuse
7	57J3	3.0117	WARWICK	1028	6	281.11	288986	Downed phase conductor - lightning Loss of 23kV supply to feeder - lightning Tripped CSP Transformer - Overload Fuse Link Failure - Overload - heat Feeder lockout - lightning Tripped CSP Transformer - Overload	Manually opened feeder breaker, made repairs and returned circuit to normal operation. Performed switching and restored circuit to normal operation. Reset breaker on transformer Replaced transformer fuse Patrolled circuit and returned circuit to normal operation. Reset breaker on transformer
8	61F2	2.8722	EAST GREENWICH WARWICK	1573	7	269.04	423198	Feeder lockout - Fallen Tree Fuse Link Failure - lightning Feeder Lockout - Overload - heat Loss of 34.5kV Supply to feeder - substation equipment overload - heat Fuse Link Failure -overload Fuse Link Failure - equipment failure Fuse Link Failure - Animal	Removed tree and restored circuit to normal operation Replaced line fuse Performed switching to relieve load and restored circuit Performed switching to relieve load and restored circuit Replaced transformer fuse Replaced failed equipment and replaced transformer fuse Replaced line fuse
9	87F1	2.8414	WARWICK CRANSTON	1217	4	314.57	382837	Fuse Link Failure - lightning Loss of 115kV supply to Substation - thunderstorms. Loss of 115kV supply to Substation - unknown cause Loss of 115kV supply to Substation - unknown cause	Replaced line fuse Patrolled supply line and found no damage. Restored circuit to normal operation. Patrolled supply line and found no damage. Restored circuit to normal operation. Patrolled supply line and found no damage. Restored circuit to normal operation.
10	72F5	2.7534	WARWICK	3313	17	325.17	1077285	Fuse Link Failure -animal Fuse Link Failure -animal Fuse Link Failure -equipment failure. Feeder lockout - tree limbs Fuse Link Failure -lightning Fuse Link Failure - equipment failure Fuse Link Failure - Lightning Fuse Link Failure - overload - heat. Fuse Link Failure - overload - heat. Tripped CSP Transformer - Overload Fuse Link Failure - overload - heat. Pole top recloser lockout - Overload - heat. Pole top recloser lockout - Overload - heat. Fuse Link Failure -animal Fuse Link Failure - tree branch Fuse Link Failure - equipment failure Fuse Link Failure - unknown cause	Replaced transformer fuse Replaced transformer fuse Replaced failed equipment and replaced transformer fuse Removed tree limbs and restored circuit to normal operation Replaced line fuse Replaced failed equipment and replaced transformer fuse Replaced transformer fuse Replaced line fuse Replaced line fuse Reset breaker on transformer Replaced transformer fuse Performed switching and restored circuit to normal operation. Performed switching and restored circuit to normal operation. Replaced transformer fuse Replaced line fuse Replaced failed equipment and replaced line fuse Replaced line fuse

**Feeder Ranking Quarterly Report**  
**The Narragansett Electric Company, d/b/a National Grid**  
**July 2006 - September 2006**

Rank	Feeder	Frequency	Town Served	Customers	Events	Duration	CMI	Cause	Corrective Action
11	34F1	2.7485	GLOCESTER COVENTRY FOSTER SCITUATE	3090	39	209.06	645993	Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Feeder lockout - lightning	Patrolled feeder - no damage found- restored circuit to normal operation.
								Fuse Link Failure- downed primaries - lightning.	Repaired primary conductors and replaced line fuse.
								Fuse Link Failure -lightning	Replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - Lightning	Replaced transformer fuse
								Fuse Link Failure - Lightning	Replaced transformer fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Fuse Link Failure - No Cause Found	Replaced line fuse
								Fuse Link Failure - Lightning	Replaced transformer fuse
								Fuse Link Failure - Lightning	Replaced line fuse
								Fuse Link Failure - deterioration	Replaced transformer fuse
								Feeder lockout - lightning	Patrolled feeder - no damage found- restored circuit to normal operation.
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - overload - heat.	Replaced line fuse
								Fuse Link Failure - tree limb	Replaced line fuse
								Replaced transformer fuse -lightning	Replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Replaced transformer fuse -lightning	Replaced transformer fuse
								Fuse Link Failure - deterioration	Replaced transformer fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Fuse Link Failure - tree limb	Replaced transformer fuse
								Pole top recloser lockout - equipment damage - motor vehicle accident	Repaired damaged equipment and restored circuit to normal operation.
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
12	6J5	2.542	PROVIDENCE	666	7	330.28	219967	Planned outage - equipment maintenance	Replaced transformer fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Pole top recloser lockout - equipment damage - motor vehicle accident	Repaired damaged equipment and restored circuit to normal operation.
13	27F4	2.4473	CRANSTON	237	4	599.77	142145	Feeder lockout - tree limbs	Removed tree limbs and restored circuit to normal operation
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - Lightning	Replaced transformer fuse

**Feeder Ranking Quarterly Report**  
**The Narragansett Electric Company, d/b/a National Grid**  
**July 2006 - September 2006**

Rank	Feeder	Frequency	Town Served	Customers	Events	Duration	CMI	Cause	Corrective Action
14	21F1	2.4427	WEST WARWICK CRANSTON	2826	21	600.99	1698384	Fuse Link Failure - Animal	Replaced transformer fuse
								Feeder lockout - Fallen Tree	Removed tree and restored circuit to normal operation
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - fallen tree	Replaced line fuse
								Fuse Link Failure - downed primaries	Repaired conductors and replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - primary contacted pole	Replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - overload - heat.	Replaced line fuse
								Fuse Link Failure - overload - heat.	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - overload - heat.	Replaced line fuse
								Fuse Link Failure -fallen tree	Removed tree and restored circuit to normal operation
								Fuse Link Failure -tree limb	Replaced line fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
15	46F3	2.3213	NORTH KINGSTOWN	1945	3	269.14	523483	Pole top recloser lockout - motor vehicle accident	Repaired damaged equipment and restored circuit to normal operation.
			EAST GREENWICH					Feeder lockout - motor vehicle accident	Repaired damaged equipment and restored circuit to normal operation.
			WARWICK					Feeder lockout - motor vehicle accident	Repaired damaged equipment and restored circuit to normal operation.
16	38F4	2.3045	SMITHFIELD	2460	7	74.03	182114	Pole top recloser lockout - overload	Performed switching and restored circuit to normal operation.
			JOHNSTON					Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced transformer fuse
								Fuse Link Failure -animal	Replaced line fuse
								Planned outage - load balancing	Restored circuit to normal operation
								Fuse Link Failure - overload - heat	Replaced transformer fuse
17	63F3	2.2833	WEST GREENWICH COVENTRY	2993	18	154.81	463348	Fuse Link Failure - lightning	Replaced line fuse
								Fuse Link Failure -tree limb	Replaced line fuse
								Fuse Link Failure - deterioration	Replaced transformer fuse
								Fuse Link Failure -lightning	Replaced line fuse
								Fuse Link Failure - lightning	Replaced transformer fuse
								Fuse Link Failure - overload	Replaced transformer fuse
								Loss of 34.5kV Supply to feeder - substation equipment overload - heat.	Performed switching to relieve load and restored circuit
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
								Fuse Link Failure -lightning	Replaced line fuse
								Fuse Link Failure -lightning	Replaced line fuse
								Planned outage - equipment maintenance	Replaced line fuse
								Fuse Link Failure -unknown cause	Replaced transformer fuse
								Replaced line fuse - lightning	Replaced line fuse
								Fuse Link Failure - cable failure	Repaired failed cable and replaced line fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced line fuse
								Fuse Link Failure- tree branch	Removed tree branch and replaced line fuse
								Fuse Link Failure - animal	Replaced transformer fuse
								Fuse Link Failure - equipment failure	Replaced failed equipment and replaced transformer fuse
18	146J14	2.2439	NEWPORT	369	2	304.05	112194	Loss of 23kV supply to feeder - cable failure	Performed switching and restored circuit to normal operation.
								Loss of 23kV supply to feeder - cable failure	Repaired failed cable and restored circuit to normal operation

The Total No. of cust's Served will vary throughout the year due to new activations, terminations of service or rearrangements of the company's distribution system.

**DURATION** = (Total CMI) / (Total no. of cust's served by feeder)

**FREQUENCY** = (Total no. of cust's interrupted) / (Total no. of cust's served by feeder)

**TOTAL CUSTOMER MINUTES (CMI)** = Sum of (((number of customers interrupted) x ( duration of interruption))) for each event]

### Certificate of Service

I hereby certify that a copy of the cover letter and / or any materials accompanying this certificate has been mailed or hand-delivered to the individuals listed below.



\_\_\_\_\_  
Joanne M. Scanlon

October 12, 2006

Date

### **Narragansett Electric Company – Service Quality Plan Docket 3628 - Service List**

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